# TECHNICAL TUESDAYS

TOPIC: Silk Bleaching Process

REF: TT/ Mar 2017/ WK 2

## Silk bleaching:

Silk bleaching is the process of whitening of the Silk fibers by removal of the Natural colouring matter. The Natural coloring matters present in silk are associated mainly with sericin and hence are eliminated during degumming.

The natural coloring matter of silk can be roughly divided into yellow, green and brown pigments. However the residual pigments are adsorbed by fibroin and hence silk fabrics made from yellow raw silk after degumming are not white but have a cream colour.

## Preferred Silk Bleaching Process:

The bleaching process may be based on reducing agents or oxidizing agents.

**Reductive Bleaching:**

The predominant reducing agents used are sulphur dioxide, sodium hydrosulphite and sodium or zinc sulphoxylate formaldehyde. The material bleached with reducing agents tend to reoxidise, causing the original color to be restored. Hence oxidizing bleaching is most preferred.

**Oxidative bleaching**
The oxidative agents used are

- Potassium permanganate
- Sodium perborate
- Sodium peroxide
- Hydrogen peroxide

Hydrogen Peroxide is mostly preferred for Silk Bleaching

The Chlorine based bleaching agents such as bleaching powder, sodium hypochlorite and sodium chlorite, are generally not used since these agents tend to chlorinate the fibroin.

Wishing you a great week ahead!

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